

ORIGINAL

DOCKET FILE COPY ORIGINAL

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

RECEIVED

JUL 31 1997

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)
)
Advanced Television Systems)
and Their Impact Upon the)
Existing Television Broadcast)
Service)

MM Docket No. 87-268

To: The Commission

**REPLY OF JEFFERSON-PILOT COMMUNICATIONS COMPANY
TO OPPOSITION OF
WAVY TELEVISION, INC.**

By its attorneys and pursuant to Section 1.429(g) of the Commission's rules, Jefferson-Pilot Communications Company ("Jefferson-Pilot"), licensee of WWBT(TV), NTSC Channel 12, Richmond, Virginia, hereby responds to the Opposition filed July 18, 1997, by WAVY Television, Inc. ("WAVY"), against Jefferson-Pilot's Petition for Reconsideration of the Commission's Sixth Report and Order ("Sixth R&O") in the above-captioned proceeding.¹ WAVY, the licensee of WAVY-TV, Portsmouth, Virginia, NTSC Channel 10, opposes Jefferson-Pilot's request that WWBT be assigned DTV Channel 11, in lieu of Channel 54, to provide digital transmissions to the Richmond area during the transition period.²

¹ FCC 97-115, released April 21, 1997, 62 Fed. Reg. 26684 (May 14, 1997).

² See Petition of Jefferson-Pilot Communications Company for Reconsideration, MM Docket No. 87-268 (filed June 13, 1997) ("Petition").

No. of Copies rec'd
List ABCDE

0+10

Jefferson-Pilot's Petition set forth several public interest goals that would be served by the assignment of DTV Channel 11 to WWBT. First, the requested change would allow Jefferson-Pilot to avoid the business planning uncertainties inherent in the use of DTV Channel 54, which is outside the DTV "core spectrum" and thus would force WWBT to relocate its digital operations at the end of the transition period.³ Further, using Channel 11 for DTV operations will help WWBT overcome significant engineering difficulties that the use of Channel 54 poses because of the age and location of the station's current antenna tower.⁴ Consequently, Jefferson-Pilot expects that WWBT will be able to bring DTV broadcasts to viewers in a more timely fashion on Channel 11 than on Channel 54.

WAVY's Opposition rests on interference that it predicts a grant of Jefferson-Pilot's request would cause to the Portsmouth-based NTSC operations on Channel 10. But WAVY's claim that WWBT's use of DTV Channel 11 would "disenfranchis[e] ... thousands of viewers" seriously overstates the case.⁵ As shown in the attached Engineering Statement of Robert W. Denny, Jr., approximately 80 percent of the six-county area and essentially 100 percent of the population that WAVY claims would be adversely affected by WWBT digital broadcasts on

³ See Petition at 2-3. Jefferson-Pilot anticipates that the final home for its digital operations will be its current NTSC Channel 12. As the Petition explains, the use of DTV channel 54 for the transition will not simply entail a "second move" but also would force WWBT to design and install a UHF transmission system that would be rendered superfluous at the end of the transition period. *Id.* at 3; see also Opposition of Jefferson-Pilot Communications Company to the Petition of Shenandoah Valley Educational Television Corporation for Partial Reconsideration, MM Docket No. 87-268 (filed July 18, 1997).

⁴ See Petition at 3 (explaining difficulties in adapting current tower facility to bear the weight of the heavy transmission line needed for operating channel 54).

⁵ WAVY Opposition at 2.

channel 11 *already* are subject to interference from existing NTSC channels or future DTV channels other than the one sought by Jefferson-Pilot.⁶

Indeed, the engineering data indicates that only about 110 square kilometers and 1,000 households would be subject to new predicted interference if WWBT's DTV signal on Channel 11 were added to the NTSC signals already causing interference to WAVY.⁷ This new interference would not affect all six counties identified by WAVY, but only a small section of the northeast corner of Charles City County, which lies well within the Richmond Designated Market Area ("DMA").⁸

Furthermore, the most recent ratings information available indicates that the actual number of viewers likely affected by Jefferson-Pilot's request would be only about 120 persons, even if all six counties are considered.⁹ According to Nielsen data, WAVY attracts viewers from 38 households in New Kent County, 10 households in Charles City County, and no households

⁶ Robert W. Denny, Jr., P.E., Engineering Exhibit: Response to the Opposition of WAVY Television, Inc., to the Petition for Reconsideration of Jefferson-Pilot Communications Company, Station WWBT(TV), Richmond, Virginia, at 2-3 (dated July 31, 1997) (attached).

⁷ Id. at 3.

⁸ Id. at 4; Broadcasting & Cable Yearbook 1996 at C-215. Indeed, all six counties identified by WAVY — including Chesterfield, Dinwiddie, Henrico, New Kent and Prince George — are located not only within the Richmond DMA but also within the narrower confines of the Nielsen Metro Ratings Area for Richmond. Broadcasting & Cable Yearbook 1996 at C-215.

⁹ Nielsen researchers provided ratings data to Jefferson-Pilot drawn from the following: Nielsen Media Research, County/Coverage Study 1996 (summarizing data on a county-by-county basis from ratings measured over four month-long periods between April 27, 1995, and February 28, 1996); Nielsen Media Research, DMA Test Market Profiles 1997; [one Nielsen source left to cite]. Nielsen has identified a total of 48 households in the six counties, each deemed to represent 2.48 viewers, as actual WAVY viewers.

in the remaining four counties.¹⁰ Thus, it appears that — at most — about 24 WAVY viewers reside in the small section of Charles City County that would receive “new” interference from WWBT digital broadcasts on Channel 11.

As WAVY recognizes, Jefferson-Pilot has pledged to work with the Commission’s staff to fashion modifications to WWBT’s DTV operating parameters in order to address any significant interference issues that use of Channel 11 might raise. Jefferson-Pilot appreciates WAVY’s willingness to cooperate in that effort.¹¹ However, the minimal impact posed by Jefferson-Pilot’s request on WAVY’s NTSC operations does not justify depriving all Richmond area viewers of the benefits of more timely and effective WWBT DTV operations on Channel 11. Accordingly, the Commission should grant the Jefferson-Pilot Petition.

Respectfully submitted,

JEFFERSON-PILOT COMMUNICATIONS
COMPANY

By: 

James R. Bayes

Rosemary C. Harold

of

WILEY, REIN & FIELDING

1776 K Street, N.W.

Washington, D.C. 20006

(202) 429-7000

Its Attorneys

July 31, 1997

¹⁰ Id.

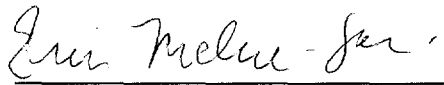
¹¹ WAVY Opposition at 3.

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing Reply to the Opposition of WAVY Television, Inc. was served via First Class mail this 31st day of July, 1997, to the following:

*Mr. William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, NW
Room 222
Washington, DC 20554

William H. Fitz
Erin M. Egan
COVINGTON & BURLING
1201 Pennsylvania Avenue, N.W.
Washington, DC 20044-7566
(Counsel for WAVY Television, Inc.)



Erin McCue Sari

* Hand delivery

DENNY & ASSOCIATES, P.C.
CONSULTING ENGINEERS
WASHINGTON, DC

**ENGINEERING EXHIBIT
RESPONSE TO THE OPPOSITION OF
WAVY TELEVISION, INC.
TO THE PETITION FOR RECONSIDERATION OF
JEFFERSON-PILOT COMMUNICATIONS COMPANY
STATION WWBT(TV)
RICHMOND, VIRGINIA**

Engineering Statement

This engineering exhibit has been prepared on behalf of Jefferson-Pilot Communications Company (Jefferson-Pilot), licensee of television station WWBT, Richmond, Virginia, in support of a response to the opposition of WAVY Television, Inc. (WAVY) to the Jefferson-Pilot Petition for Reconsideration of the *Sixth Report and Order* in MM Docket Number 87-268. In its petition, Jefferson-Pilot requests that DTV channel 11 (198-204 megahertz (MHz)) be allotted to Richmond, Virginia, for use by its station WWBT in lieu of the DTV channel 54 allotment made in Table 1 of the *Sixth Report and Order*.

WAVY is the licensee of station WAVY-TV, Portsmouth, Virginia. WAVY-TV operates on NTSC channel 10 (192-198 MHz) with peak visual effective radiated power (ERP) of 316 kilowatts (kW) and antenna radiation center height above average terrain (HAAT) of 302 meters. This combination of power and height is virtually equivalent to the maximum permitted a channel 10 television station in Zone I. WAVY asserts that operation of WWBT on DTV channel 11 with ERP of 12.6 kW and antenna radiation center HAAT of

DENNY & ASSOCIATES, P.C.
CONSULTING ENGINEERS
WASHINGTON, DC

Engineering Statement
WWBT(TV), Richmond, Virginia

Page 2

241 meters, as proposed by Jefferson-Pilot, will cause interference to the reception of WAVY-TV on NTSC channel 10.

In support of its opposition, WAVY submits a technical statement containing a DTV propagation analysis prepared using the National Telecommunications Information Agency (NTIA) DTV propagation model. WAVY acknowledges that the NTIA model does not replicate the *OST Bulletin Number 69* methodology for evaluating DTV coverage and interference. The NTIA model was developed independently from the FCC model, and the results produced by each model given the same set of input data can disagree, often to a great extent. Differences in the results achieved using the two supposedly comparable models may be attributed in part to the dissimilar methods in which the two computer models process elevation and population data.

The differences between the prediction methodologies notwithstanding, assuming the NTIA model can be used as an indicator of the results that might be achieved using a precise implementation of the *OST Bulletin Number 69* methodology, the WAVY claim of interference from the proposed WWBT DTV operation to 108,000 persons in 39,000 households within 520 square kilometers is based on an incomplete analysis of predicted interference. The WAVY study does not consider all sources of predicted interference to NTSC WAVY-TV. Instead, the WAVY study considers only the predicted interference from the proposed operation of WWBT on DTV channel 11. WAVY's partial analysis of predicted interference does not identify those areas within the WAVY-TV Grade B contour that are predicted to receive

DENNY & ASSOCIATES, P.C.
CONSULTING ENGINEERS
WASHINGTON, DC

Engineering Statement
WWBT(TV), Richmond, Virginia

Page 3

interference from existing NTSC sources and future DTV stations aside from WWBT, and, as a result, includes areas and populations already predicted to receive interference from other sources in its estimate of area and population predicted to receive new interference from the proposed use of DTV channel 11 by WWBT.

Figure 1 of this exhibit is an NTIA study showing the interference-free NTSC coverage for WAVY-TV. This study shows that NTSC WAVY-TV is predicted to receive interference within its Grade B contour from existing NTSC stations within an area of 2250 square kilometers containing 139,000 persons in 51,000 households and from all DTV stations except the proposed WWBT DTV channel 11 operation within an area of 4040 square kilometers containing 56,000 persons in 21,000 households. Figure 2 of this exhibit is a second NTIA study prepared in the same manner as the Figure 1 study except that the proposed WWBT DTV channel 11 operation has been included in the interference analysis. As would be expected, Figure 2 shows no change in the WAVY-TV land area or population predicted to receive interference from NTSC sources. Figure 2 also shows that NTSC WAVY-TV is predicted to receive interference from all DTV stations, including WWBT, within an area of 4150 square kilometers containing 58,000 persons in 22,000 households. Thus, the addition of WWBT on DTV channel 11 at Richmond is not predicted to cause new interference within an area of 520 square kilometers containing 108,000 persons in 39,000 households as implied by WAVY. Instead, only 110 square kilometers containing 2,000 persons in 1000 households are predicted to receive interference when existing interference to WAVY-TV is taken into account.

DENNY & ASSOCIATES, P.C.
CONSULTING ENGINEERS
WASHINGTON, DC

Engineering Statement
WWBT(TV), Richmond, Virginia

Page 4

The difference between the instant analysis and the WAVY analysis arises from the fact that the WAVY analysis does not acknowledge the presence of existing interferors. Close scrutiny of Figure 2 reveals that the only area within the WAVY-TV Grade B contour predicted to receive interference from the proposed WWBT DTV operation on channel 11 that is not currently predicted to receive interference from another source is a small area located in the northwest corner of Charles City County, Virginia. WAVY-TV is predicted to receive NTSC interference in the vicinity of its Grade B contour in the Virginia counties of Dinwiddie, Prince George, Chesterfield, Henrico, and New Kent, from existing cochannel and adjacent channel NTSC stations. All of the counties of concern to WAVY are located well outside the Norfolk-Portsmouth-Newport News, Virginia, Designated Market Area (DMA) and well within the Richmond-Petersburg, Virginia, DMA and Nielsen Metro rating area.

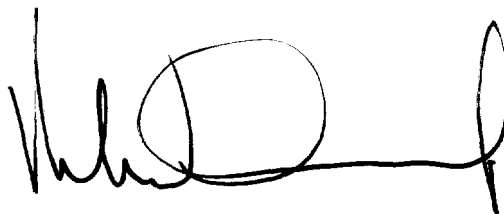
The studies presented herein show that the use of DTV channel 11 at Richmond by WWBT will not cause extensive interference to WAVY-TV. When WWBT's use of DTV channel 11 at Richmond is evaluated taking into account all of the other adjacent channel and cochannel stations that might cause interference to WAVY-TV, only 2000 persons in 110 square kilometers are predicted to receive interference from WWBT. The remaining 106,000 persons within 410 square kilometers that are claimed by WAVY to receive interference from the proposed WWBT DTV channel 11 operation are shown herein to receive interference from at least one other existing NTSC station or a future DTV station aside from WWBT. The NTIA DTV propagation model predicts that any

DENNY & ASSOCIATES, P.C.
CONSULTING ENGINEERS
WASHINGTON, DC

Engineering Statement
WWBT(TV), Richmond, Virginia

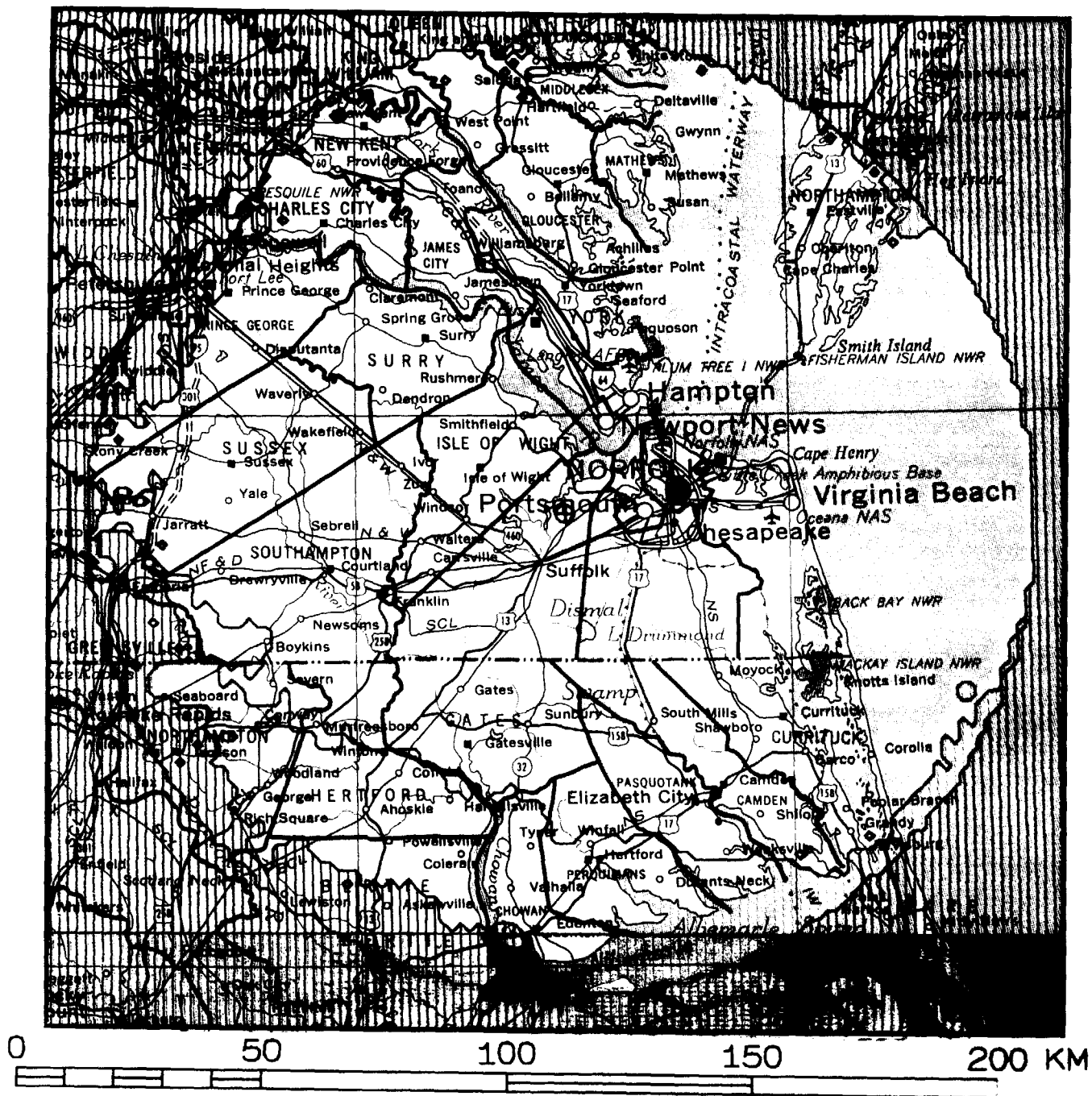
Page 5

new interference caused to WAVY-TV will lie the fringe of its Grade B coverage area within a small area well outside the DMA served by WAVY-TV.

A handwritten signature in black ink, appearing to read 'R. W. Denny, Jr.', with a large circular flourish in the middle.

Robert W. Denny, Jr., P.E.

July 31, 1997



COVERAGE AND INTERFERENCE STUDY*

WAVY-TV (NTSC)

PORTSMOUTH, VIRGINIA

CH 10 316 KW 302 METERS

Prepared for
JEFFERSON-PILOT COMMUNICATIONS
COMPANY

Denny & Associates, P.C. Consulting Engineers

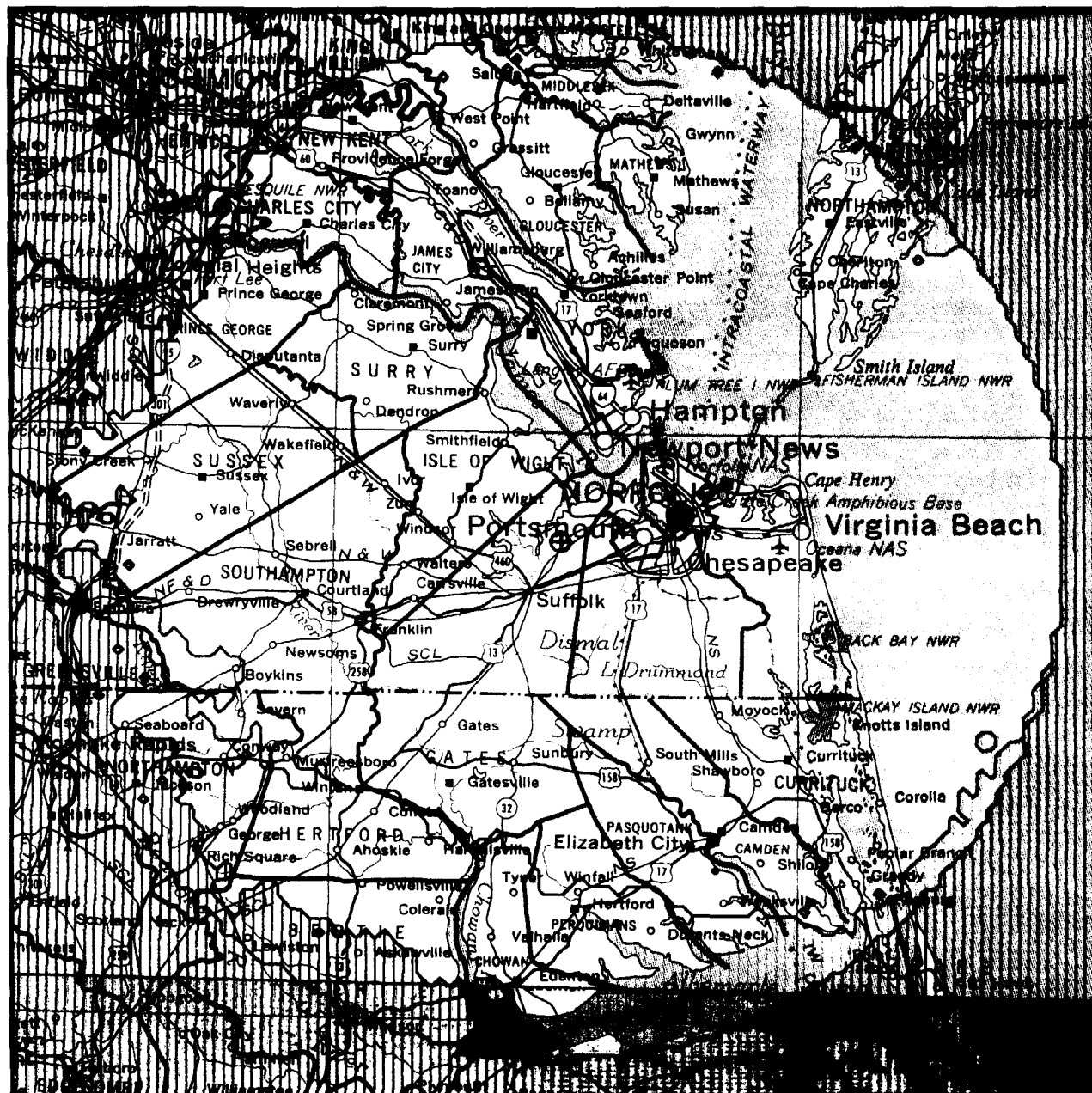
Excludes operation of WWBT, Richmond, on DTV Channel 11

Signal to Interference Ratio

	No Interference
Area:	22800. sq km
Population:	1476000.
Households:	535000.
HDTV Interference	
Area:	4040. sq km
Population:	56000.
Households:	21000.
	NTSC Interference
Area:	2250. sq km
Population:	139000.
Households:	51000.
	Signal Strength Below Receiver Noise Threshold

* Computation based on ITS Irregular Terrain Model for 50% confidence factor with results clipped at the limit of the predicted Grade B contour.

JULY 1997



COVERAGE AND INTERFERENCE STUDY*

WAVY-TV (NTSC)

PORTSMOUTH, VIRGINIA

CH 10 316 KW 302 METERS

Prepared for

JEFFERSON-PILOT COMMUNICATIONS
COMPANY

Denny & Associates, P.C. Consulting Engineers

Includes operation of WWBT, Richmond, on DTV Channel 11

Signal to Interference Ratio

□ No Interference
Area: 22690. sq km
Population: 1474000.
Households: 534000.

HDTV Interference
Area: 4150. sq km
Population: 58000.
Households: 22000.

■ NTSC Interference
Area: 2250. sq km
Population: 139000.
Households: 51000.

■ Signal Strength Below
Receiver Noise Threshold

* Computation based on ITS Irregular Terrain Model for 50% confidence factor with results clipped at the limit of the predicted Grade B contour.

0 50 100 150 200 KM

JULY 1997

Figure 2